

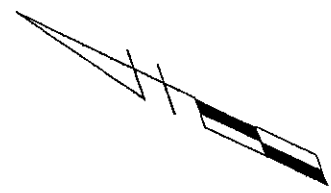
PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE PARTIAL RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 30 AND GILL AVENUE IN CARROLL COUNTY. MD 30 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

THIS WORK IS NECESSITATED BY THE CONSTRUCTION OF A RIGHT TURN LANE ON WESTBOUND GILL AVENUE AND WILL CONSIST OF THE REPLACEMENT OF THE CONTROLLER, MAST ARM POLE AND DETECTORS.

CONTROLLER OPERATION

AN EIGHT-PHASE, FULLY ACTUATED NEMA CONTROLLER WITH TWO FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A POLE MOUNTED CABINET WILL BE INSTALLED AT THE INTERSECTION.THE CONTROLLER CURRENTLY OPERATES IN A FOUR-PHASE FULLY ACTUATED MODE WITH AN ALTERNATE PEDESTRIAN PHASE ACCROSS THE SOUTH LEG OF MD 30  
THIS OPERATION WILL REMAIN THE SAME.

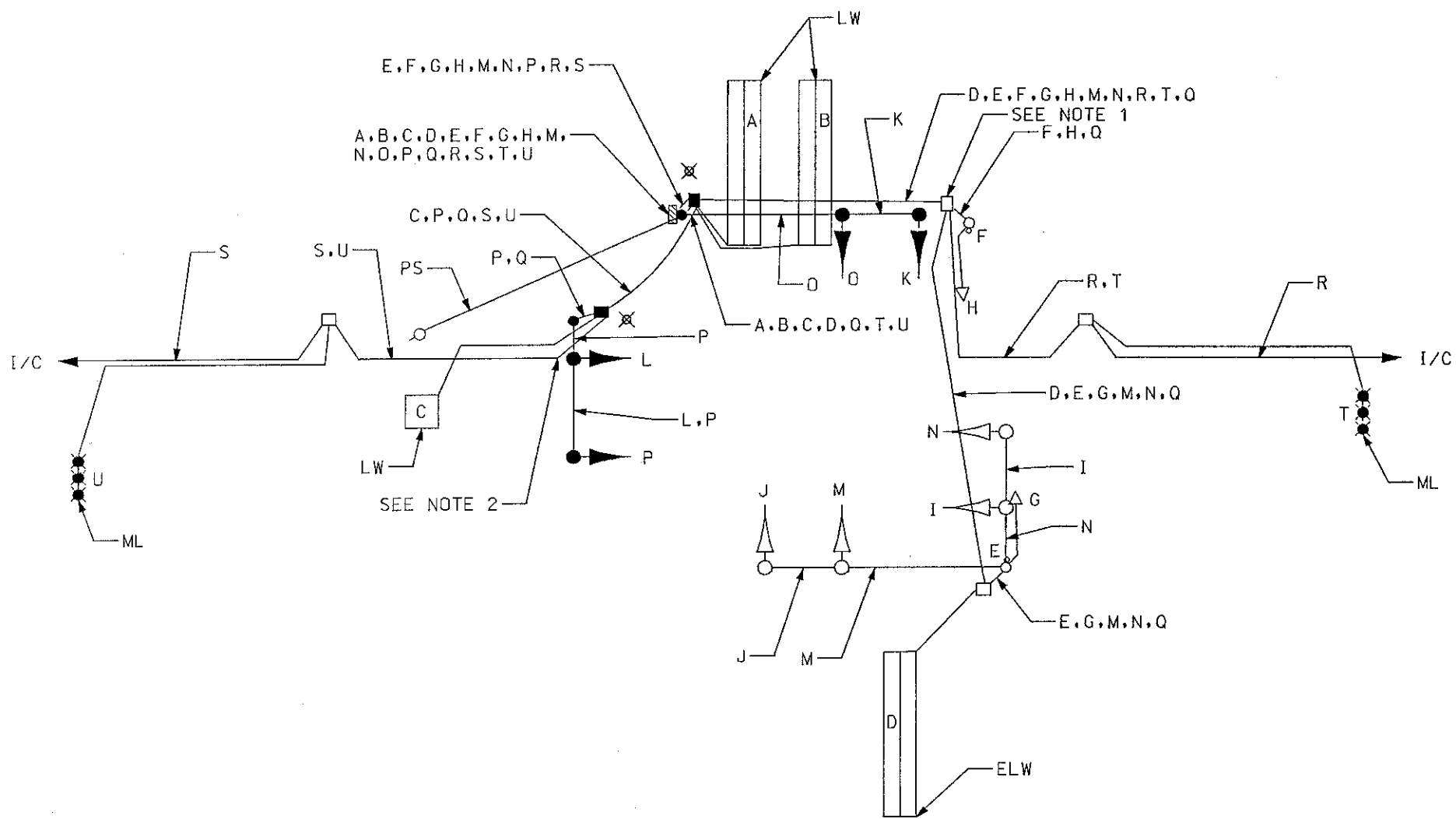


PHASE CHART

	1	2	3	4	5	6	7	8	9	10	
	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(DW WK)	(DW WK)	
PHASE 2 + 6	G	G	G	G	R	R	R	R	DW	DW	
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	
PHASE 4 & 8	R	R	R	R	G	G	G	G	DW	DW	
4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	
2 + 6 CHANGE	R	R	R	R	G	G	G	G	FL/WK	FL/WK	
PHASE 4 & 8	R	R	R	R	G	G	G	G	FL/DW	FL/DW	
4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

WIRING DIAGRAM

- NOTES:
1. DISCONNECT EXISTING INTERCONNECT CABLE (R) FROM CONTROLLER AND PULL BACK TO THIS EXISTING HANDHOLE. RE-INSTALL THROUGH NEW CONDUIT TO THE CONTROLLER.
  2. DISCONNECT EXISTING INTERCONNECT CABLE (S) FROM CONTROLLER AND PULL BACK TO THE LOCATION OF THIS EXISTING CONDUIT. RE-INSTALL THROUGH NEW CONDUIT TO THE CONTROLLER.



WIRING KEY

- |   |                              |
|---|------------------------------|
| A-D 2-CONDUCTOR ELECTRICAL CABLE<br>ALUMINUM SHIELDED (NO. 14 A.W.G.) | ELW EXISTING LOOP WIRE       |
| E-F 2-CONDUCTOR ELECTRICAL CABLE<br>(NO. 14 A.W.G.)                   | LW LOOP WIRE (NO. 14 A.W.G.) |
| G-H 3-CONDUCTOR ELECTRICAL CABLE<br>(NO. 14 A.W.G.)                   | X GROUND ROD                 |
| I-L 5-CONDUCTOR ELECTRICAL CABLE<br>(NO. 14 A.W.G.)                   | PS PROPOSED ELECTRIC SERVICE |
| M-P 7-CONDUCTOR ELECTRICAL CABLE<br>(NO. 14 A.W.G.)                   | ML MICRO-LOOP PROBE          |
| Q STRANDED BARE COPPER GROUND<br>WIRE (NO. 6 A.W.G.)                  |                              |
| R-S EXISTING INTERCONNECT CABLE                                       |                              |

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY SHA AND INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
---	1 EA	EIGHT-PHASE POLE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT
---	2 EA	FOUR-CHANNEL-TIME-DELAY OUTPUT LOOP DETECTOR AMPLIFIER
---	51 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING: -2 EA - M95-1 SIGN (72"X24") MAST ARM MOUNT -1 EA - R10-11B SIGN (24" X 24") MAST ARM MOUNT -1 EA - R12-5(4) SIGN (36" X 48") POLE MOUNT -1 EA - D3-2 DUAL FACE SIGN "GILL AVENUE" (VAR X 16") MAST ARM MOUNT

CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:

MR. JOHN CONCANNON ASSISTANT DISTRICT ENGINEER - TRAFFIC (301) 624-8141	MR. JIM BUCKALEW ASSISTANT DISTRICT ENGINEER - UTILITIES (301) 624-8110
	MR. DAVID COYNE ASSISTANT DISTRICT ENGINEER - MAINTENANCE (301) 624-8106

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676
MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7631	MR. DAVID SCHWARTZ SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE) (410) 787-7668
MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652	

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	2 EA	TEST PIT EXCAVATION
5004	120 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5005	30 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
8006	2 EA	CUT, CLEAN AND CAP TRAFFIC SIGNAL STRUCTURE
8011	12 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
8025	1 EA	FURNISH AND INSTALL 50 FT. MAST ARM AND POLE(15'T)
8029	2 EA	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8047	1 EA	REMOVE AND DISPOSE OF FOUNDATION 12 IN. BELOW GRADE
8048	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
8057	6 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8060	210 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8067	190 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT-SLOTTED
8068	35 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8070	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 A.W.G.)
8072	2 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8075	51 SF	INSTALL OVERHEAD SIGN
8080	2 EA	FURNISH AND INSTALL GROUND ROD - 3/4" X 10'
8081	240 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHEILDED)
8082	260 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
8083	270 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
8084	100 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8085	580 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8087	1040 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 A.W.G.)
8088	490 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8092	1 EA	INSTALL CONTROLLER AND CABINET - POLE MOUNT
NEG.	130 LF	PULL BACK AND RE-INSTALL EXISTING CABLE
NEG.	1 EA	FURNISH AND INSTALL 38 FT. MAST ARM AND POLE(15'T)
NEG.	1 EA	MOBILIZATION

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

QUANTITY	DESCRIPTION
NONE	

NOTE: EXCEPT AS NOTED, ALL REMOVED SIGNAL EQUIPMENT AND MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION GENERAL INFORMATION SHEET MD 30 AND GILL AVENUE			
DRAWN BY: T. ZAYDEL	F.A.P. NO. K. SCHMID	TS NO. 1122E GI	SHEET NO. 2 OF 2
CHECKED BY: K. SCHMID	S.H.A. NO. C-119451	T.I.M.S. NO. E-585	
SCALE: NONE	COUNTY: CARROLL	LOG MILE: 06030002.21	
DATE: 4-9-02			